CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Date: 21-12-2023

To,

ASSISTANT EXECUTIVE ENGINEER

PROJECT SUB DIVISION

BBMP

BANGALORE

Dear Sir,

Sub: M/s. Civil Pro Services for the work of **"ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO.14."**

Ref: 1. Work Order No: EE(Project)/Ynk Zone/ WO/087/2022-23

2. Job code: 014-23-000014

We are here with forwarding to Sri. Abbu Sambasiva Reddy, #1-B3, Sree Arcade Layout, 4th Block, D B Sandra, Vidyaranyapura, Bangalore-97. First & Final Bill duly verified and certified that the work is satisfactory and for a Gross Value of Rs. 3,07,05,990.00/- (Rs. Three Crore Seven Lakhs Five Thousand Nine Hundred and Ninety Only).

Thanking you,

Yours faithfully,

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

For Civil Pro

R. KARTHIK RECHAN B.E, M.S (U.S.A)
PRINCIPAL CONSULTANT
CIVIL PRO

Attachments PMC Compliance report

NAME OF WORK:- Additional Developmental Works To Vidyaranyapura Indoor Stadium New Ward No.14

Name of Client : EXECUTIVE ENGINEER, PROJECT DIVISION, BBMP, BANGALORE

Contractor/ Agency: Sri. Abbu Sambasiva Reddy, #1-B3, Sree Arcade Layout, 4th Block, D B Sandra, Vidyaranyapura, Bangalore-97

Total Cost : Rs.3,07,05,990.00/-

Date Of Inspection : 21-12-23

Status Of Bill : First & Final Bill

In the Presence of : a) Assistant Engineer , Project division, BBMP, Bangalore
b) R. Karthik Rechan, Proprietor, CIVIL PRO, BANGALORE

PMC COMPLIANCE REPORT		
Sl. No.	**Description of work**	**Comments/Observations**
1	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer-in-charge. complete with all lead and lift as per the direction of Engineer-In-Charge	Work done upto the Billed Quantity and the Quality is satisfactory
2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer-in-charge. In cement mortar complete with all lead and lift as per the direction of Engineer-In-Charge	Work done upto the Billed Quantity and the Quality is satisfactory
3	Removing and refixing of footpath slab	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

4	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.	Work done upto the Billed Quantity and the Quality is satisfactory
6	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates.Specification	Work done upto the Billed Quantity and the Quality is satisfactory
7	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)	Work done upto the Billed Quantity and the Quality is satisfactory
8	Providing Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.	Work done upto the Billed Quantity and the Quality is satisfactory
9	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates	Work done upto the Billed Quantity and the Quality is satisfactory

CIVIL Pro Sig..... Date..... BANGALORE

Asst. Executive Engineer
Karnataka Zone
PWD Bangalore - 92

10	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) Mix 1:2:4 (M15) Using 20 mm nominal size graded crushed coarse aggregates	Work done upto the Billed Quantity and the Quality is satisfactory
11	Providing and fixing Structural Steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge	Work done upto the Billed Quantity and the Quality is satisfactory
12	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	Work done upto the Billed Quantity and the Quality is satisfactory
13	Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per m2 over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level , including cost of materials, labour and Usage charges of machinery complete as per specifications.	Work done upto the Billed Quantity and the Quality is satisfactory
15	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations and other similar works etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. complete with all lead and lift as per the direction of Engineer-In-Charge	Work done upto the Billed Quantity and the Quality is satisfactory

CIVIL PRO Sig..... Date..... BANGALORE

Asst. Executive Engineer
Project Division
Bangalore

16	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3)	Work done upto the Billed Quantity and the Quality is satisfactory
17	Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km	Work done upto the Billed Quantity and the Quality is satisfactory
22	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates.	Work done upto the Billed Quantity and the Quality is satisfactory
27	Providing Thermo-Mechanically Treated bars of grade Fe-500D or more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members whereever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately).	Work done upto the Billed Quantity and the Quality is satisfactory
28	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.	Work done upto the Billed Quantity and the Quality is satisfactory
29	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.	Work done upto the Billed Quantity and the Quality is satisfactory

Executive Engineer
Division
Yelahanka Zone
BBMP, Bangalore

CIVIL Pro
Sig.....
Date.....
BANGALORE

30	Providing 20 mm cement plaster of mix :1:6 (1 cement: 6 fine sand) to brick/stone masonary including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge.	Work done upto the Billed Quantity and the Quality is satisfactory
31	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates.	Work done upto the Billed Quantity and the Quality is satisfactory
32	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement: 3 coarse sand) finished rough with sponge to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge.	Work done upto the Billed Quantity and the Quality is satisfactory
34	Providing 12 mm cement plaster with Cement mortar 1:3 (1cement: 3 coarse sand) finished with a floating coat of neat cement to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge	Work done upto the Billed Quantity and the Quality is satisfactory
35	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer in charge.	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

36	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :Two coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge.	Work done upto the Billed Quantity and the Quality is satisfactory
39	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge : ** Flamed finish granite stone slab Black, Cherry Red, Brown, Cat Eye, River Pink or equivalent	Work done upto the Billed Quantity and the Quality is satisfactory
40	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ m2 including grouting the joints with white cement and matching pigments etc., complete.	Work done upto the Billed Quantity and the Quality is satisfactory
41	Providing Venyl flooring of approved quality and make, fixed on the top of existing flooring fixed with suitable adhesive, including cutting to the requied size and fixing etc., complete licluding cost of all materials, mortar, labour, curing etc., complete as per specification.	Work done upto the Billed Quantity and the Quality is satisfactory
46	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings / wooden frames with rawl plugs screws etc	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL PRO
Sig.....
Date.....
BANGALORE

47	Providing & fixing of 3-track x 2-panel sliding windows made out of multi chambered UPVC(Matching to RAL-9016) sections and with minimum TiO2(Titanium Dioxide) at 6PHR with TPE(Thermo Plastic Elastomer) and lead free, gaskets -grey colour having isolated drainage and reinforced with Galvanized Iron profile through-out the window frame. The outer frame having an overall size of 108mm width x 45mm height with reinforcement of 1mm thickness and Sash with overall size of 39mm x 75mm with GI reinforcement of 2mm and mesh sash of size 37mm x 58mm. Coextruded Glazing bead for fixing of glass shall be of size 20mm x 24 mm. Windows shall be provided with 6mm plain float glass, standard hardware& Multi point locking system with touch lock. Wall thickness of frame & sash shall be of 2mm-2.5mm. Maximum possible size – 2419mm x 2200mm. (The cost is inclusive of all fixtures and separate charges for minor T&P's shall not be made).	Work done upto the Billed Quantity and the Quality is satisfactory
49	Providing Venyl flooring of approved quality and make, fixed on the top of existing flooring fixed with suitable adhesive, including cutting to the requied size and fixing etc., complete licluding cost of all materials, mortar, labour, curing etc., complete as per specification	Work done upto the Billed Quantity and the Quality is satisfactory
50	Providing and fixing Acoustic Veneer paneling, over the 50mm x 35mm sal wood frame work at spacing not exceeding 600mm c/c fixed to the wall filled with 50mm thick 32kg density glass wool and top covered out of 4mm thick approved quality Veneer, fixed over 19mm thick ply strips of 100mm to 200mm with a gap of 6mm to 10mm in between strips of approved brand, termite and water resistant, finished with melamine polish, complete including cost and conveyance of all materials, labour for all items of work, HOM complete as per specification	Work done upto the Billed Quantity and the Quality is satisfactory
51	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.) including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge.	Work done upto the Billed Quantity and the Quality is satisfactory

CIVIL Pro Sig..... Date..... BANGALORE

Asst. Executive Engineer
Yelahanka Zone
BBMP, Bangalore - 92

53	Providing and laying water proofing treatment to the Roof with PU based single component elastomeric pure polyurethane based coating on New terrace/Chajjas/Sunken portion of WC:Bathroom, cold applied PU waterproofing membrane that is highly elastic with elongation greater than 400% and tensile strength greater than 2MPa as per ASTM D412. The waterproofing membrane to be applied in 2coats @ 1.6kg per m2 to achieve final DFT (dry film thickness) of 1mm including prime coat of epoxy primer @150 g per m2 and protection with 120gsm Geo-textile over the waterproofing membrane. The finished cost to include surface preparation, making coving at Junction, Bore Packing, treatment of construction joints completely as per specification & with a 10 years warranty on product & work from certified manufacturers as per the direction of the Engineer In charge.	Work done upto the Billed Quantity and the Quality is satisfactory
54	Providing and fixing Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Electric resistance or induction butt welded tubes including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge.	Work done upto the Billed Quantity and the Quality is satisfactory
55	Providing and laying water proofing treatment to the Retaining wall area with PU Elastomeric Single component liquid applied, cold applied, moisture cured high tensile elastomeric PU waterproofing membrane having elongation of more than 400% and having solid content of above 90% @ 1.6kg per m2 in 2 coats to achieve final DFT (dry film thickness) of 1mm including prime coat of epoxy primer @150 g/ m2. The cost is inclusive of surface preparation, crack filling, repair of loose mortar etc. completely as per specification & with a 10 years warranty on product & work from certified manufacturers as per the direction of the Engineer In charge.	Work done upto the Billed Quantity and the Quality is satisfactory
56	Earth work excavation for pipeline trenches in all kinds of soils by mechanical means above 600 mm trench width as per drawing and technical specifications, including setting out, construction of shoring, strutting, barricading, caution lights, bracing, using sight rails & boning rods at every 100 mm whevere necessary as directed, removal of stumps and other deleterious matter, dressing of sides and levelling the bottom of trench to the extent required , utilising the available excavated earth locally for the work etc., and all other appurtenances complete in the following strata	Work done upto the Billed Quantity and the Quality is satisfactory

CIVIL Pro Sig..... Date..... BANGALORE

Asst. Executive Engineer
Bangalore Zone
BWSSB, Bangalore - 52

57	Concealed Conduit System Supplying heavy gauge PVC conduit pipe 25 mm dia 2 mm thick confirming to IS 2509 with suitable size bends, metal/PVC junction boxes, adhesive paste etc., and running before concreting the slab. The conduit should be tied to the reinforcement rods by using binding wires and unused ways of junction boxes and pipe ends should be covered using PVC end enclosures, run with 18SWG GI fish wire wherever necessary	Work done upto the Billed Quantity and the Quality is satisfactory
58	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments. 1.5Sqmm.	Work done upto the Billed Quantity and the Quality is satisfactory
59	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mauling with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100 V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with ..... W System Power consumption. LED Efficiency> 1301m/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL / CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark / name shall be Engraved / Embossing on the die cast housing / Body part Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/.	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

60	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mauling with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100 V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with ..... W System Power consumption. LED Efficiency> 130lm/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL / CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark / name shall be Engraved / Embossing on the die cast housing / Body part Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/.	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

61	Fabrication, Supplying, Erection, Testing and Commissioning of ..... ms long Polygon high mast with Single/Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grades 355 JO/ASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/s as per IS 875 part 3(as per GA Drawing). Base plate as per IS 2062/ASTM A572-50. The mast shall be Galvanized in single Hot-dip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint The mast shall have 2 Way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5 mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5 mm2 EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement The mast shall have manual/power tool (Suitable reversible geared motor operating on 230/415V, 50Hz, shall be provide above 15 Mtr mast) The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3 mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin I A fitting with wiring complete. (excluding foundation) as per technical data.12 m/12.5 m - Top 100 mm and Bottom 310 mm dia	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

62	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm.Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Floodlight 240W	Work done upto the Billed Quantity and the Quality is satisfactory
63	Supplying of 1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 25 Sqmm, 3.5 Core, (12 GI Strips - 4 x 0.8 mm)	Work done upto the Billed Quantity and the Quality is satisfactory
64	Compact RMU (VCB/SF6 Type) with Copper Busbar, 350 MVA, 630 Amps as per IEC62271/IS-3427 4 Way RMU, 2 OD + 2 VL (One Incomer + Two Breakers + One Outgoing)	Work done upto the Billed Quantity and the Quality is satisfactory
65	11 kV, 3 Core, XPLE HTUG Cable with pressure extruded inner sheeth, ROUND WIRE ARMOURED as per IS-7098 (Part-2) Armouring wires dia and Resistivity as per IS-3975 95 Sqmm, (54 GI Wires - 2.5 mm Dia).	Work done upto the Billed Quantity and the Quality is satisfactory
66	60W highbay LED linear type light fixture make-crompton ,model -LHBL60CDL	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Prd
Sig.....
Date.....
BANGALORE

72	Supply and Installation of Table Tennis Tables of Approved Brands like Stiga, Stag, Butterfly, Yasaka, Cornilleau or any Approved brand as per directions of the Engineer incharge. The Rates including cost of all materials, labour, packing joints and mortar, finishing curing all lead and lift, transportation and also including all applicable taxes, etc., complete as per direction of Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
73	Providing and constructing standard Rubber Flooring for indoor area using Rubber membrain of 12mm to 16mm thick to be layed over Prepared Cement Morter / concrete Surface using CM 1:6 beneath rubber membrain including cost o all materials, labour, packing joints and mortar, finishing curing all lead and lift, transportation and also including all applicable taxes, etc., complete as per direction of Engineer in charge of the work	Work done upto the Billed Quantity and the Quality is satisfactory
74	Providing and Installing Rubber Column Safety Guard made of 50mm Leather with Soft Foam Rubber Cushioning inside with 12mm waterproof plywood including cost of all materials, labour, packing joints and mortar, finishing curing all lead and lift, transportation and also including all applicable taxes, etc., complete as per direction of Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
75	Providing Aluminium name Board with using MS pipe for board safety and also LED Lighting with 3D Sign Letters, including cost of all materials, labour, packing joints and mortar, finishing curing all lead and lift, transportation and also including all applicable taxes, etc., complete as per direction of Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
76	Providing Aluminium name Board with 3D Sign Letters, including cost of all materials, labour, packing joints and mortar, finishing curing all lead and lift, transportation and also including all applicable taxes, etc., complete as per direction of Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
77	Supply and Installation of approved Wooden Floor for Indoor Hall - Maple Flooring with PU Scaler and coat polish 20mm,thickness 60mm width 2000mm, third &better grade treated sleepers of size 30*60mm to be installed 30cm center to center 20mmm professional EPDM rubber pad inclusive of HOM, labour etc. asper the directions of Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

E1	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :Two coats on new work after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge	Work done upto the Billed Quantity and the Quality is satisfactory
E2	Finishing walls with Acrylic Smooth exterior paint of required shade:New work (Two coat applied @ 1.67 ltr/10 m^2 over and including priming coat of exterior primer applied @ 2.20 kg/10 m^2) with paint of approved quality to give an even shade, after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge.	Work done upto the Billed Quantity and the Quality is satisfactory
E3	Providing and fixing PUF Pannel with precoated galvanised iron profile sheets on the top surface and a ribbed liner tray on the underside and a sandwiched insulation cover. The Profile is as follows- Inner skin: Ribbed liner, aluminium foil/craft paper Outer skin: 35x250mm trapezoidal profile with 2 secondary ribs and anti-capillary flute. The panel thickness of 50 mm. Surface finish: Metallic, solid colours, Polyvinylidene fluoride (PVDF) & super polyster coatings. The Specifications of precoated galvanised iron profile sheets is as follows (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per m2 as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet hould have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 m or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling/self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. The Rate Includes Transportation, Fixing inclusive of All Hardware and Labour Charges and as per Directions of the Engineer incharge.	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

E4	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per m2 as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :Gutter (600 mm over all girth)	Work done upto the Billed Quantity and the Quality is satisfactory
E5	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion, [i] single socketed pipes 100mm diameter	Work done upto the Billed Quantity and the Quality is satisfactory
E6	Providing and fixing Net pole Total Weight 200 KG Material used; Carborudum,Poles gauge:14,Top Wheel type,PaintType: Epoxy Painting,Movable Type: Portable on wheels .Height ; 5.1ft. Tapered box with Yonex Standred Net as Per Specification etc., complete including transportation installation at site.(Data rate)	Work done upto the Billed Quantity and the Quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE